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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/046,516	10/26/2001	Sven Graupner	10010929-1	3426

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HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER	
AVELLINO, JOSEPH E	

ART UNIT	PAPER NUMBER
2143	

DATE MAILED: 05/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/046,516	GRAUPNER ET AL.	
	Examiner	Art Unit	
	Joseph E. Avellino	2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 June 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-17 are presented for examination; claims 1, 12, and 13 independent.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-18 of application no. 10/147,519 contain every element of claims 1-17 of the instant application and as such anticipate claims 1-18 of the instant application.

4. Claims 1-15 of application no. 10/044,882 contain every element of claims 1-17 of the instant application and as such anticipate claims 1-18 of the instant application.

5. Claims 1-31 of application no. 10/164,554 contain every element of claims 1-17 of the instant application and as such anticipate claims 1-18 of the instant application.

6. "A later patent claim is not patentably distinct from an earlier patent claim if the later claim is obvious over, or **anticipated by**, the earlier claim. In re Longi, 759 F.2d at 896, 225 USPQ at 651 (affirming a holding of obviousness-type double patenting

because the claims at issue were obvious over claims in four prior art patents); In re Berg, 140 F.3d at 1437, 46 USPQ2d at 1233 (Fed. Cir. 1998) (affirming a holding of obviousness-type double patenting where a patent application claim to a genus is anticipated by a patent claim to a species within that genus)." ELI LILLY AND COMPANY v BARR LABORATORIES, INC., United States Court of Appeals for the Federal Court, ON PETITION FOR REHEARING EN BANC (DECIDED: May 30, 2001).

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, and 12-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Pace et al. (US 2003/0051236) (hereinafter Pace).

8. Referring to claim 1, Pace discloses a computer-implemented method for identifying optimal allocations of computing resources in a data processing arrangement having a plurality of computing machines that host a plurality of application processes, comprising:

establishing a plurality of server models (i.e. target node classes), each server model including one or more server nodes (i.e. those which reflect geographic, logical, business category-based and or any other general class relationships), wherein each server node has an associated a set of capacity attributes (an inherent feature since every server has attributes regarding its capacity, and therefore every class of target nodes has an associated set of capacity attributes) (p. 19, ¶ 306);

designating a layered relationship between the server models wherein for a first server-model layer immediately above a second server-model layer, the second server model layer includes respective models that represent the nodes in the first server-model layer (an inherent feature of a hierarchical relationship is that they contain subclasses) (p. 19, ¶ 306);

establishing a plurality of service models (i.e. system parts classes), each service model including one or more service nodes (i.e. reflect technical requirement, business purpose or any other general class relationships), wherein each service node has an associated a set of demand attributes (an inherent feature since metrics are returned p. 53 ¶ 808, which inherently requires that demands regarding the application must be there) (p. 19, ¶ 307);

designating a layered relationship between the service models wherein for a first service-model layer immediately above a second service-model layer, the second service-model layer includes respective models that represent the nodes in the first service-model layer (an inherent feature of a hierarchical relationship is that they contain subclasses) (p. 19, ¶ 307);

generating an optimized mapping of service nodes in a user-selected service model to server nodes in a user-selected server model as a function of the demand and capacity attributes (the models are inherently user selected since the models must be created somehow based on characteristics stated in Pace, and therefore a network administrator would have to define those classes in some fashion) (p. 53, ¶ 808-811).

9. Referring to claim 2, Pace discloses monitoring, while the applications are executing (an inherent feature, otherwise metrics would not be received), levels of demand (i.e. metrics such as transaction per second for computational environments) (p. 53, ¶ 808);

storing levels of demand (an inherent feature, otherwise they would not be able to be utilized for optimization);

generating an alternate optimized mapping of service nodes in a user-selected service model to server nodes in a user-selected server model using the stored levels of demand and the capacity attributes (p. 53, ¶ 811).

10. Claims 12-14 are rejected for similar reasons as stated above.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

> invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 3-11, and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pace in view of Hauser et al. (USPN 5,889,956) (hereinafter Hauser).

13. Referring to claim 3, Pace discloses the invention substantively as described in claim 2. Pace furthermore inherently discloses establishing one or more service-node relationships between selected pairs of the service nodes, and establishing one or more server-node relationships between selected pairs of the server nodes, since any hierarchical relationship would have a reference to its parent and child level. Pace does not specifically disclose that the service-node relationships are demand attributes, the server-node relationships are capacity attributes, and generating an optimized mapping as a function of the service-node relationships and server-node relationships. In analogous art, Hauser discloses a hierarchical resource management system which

discloses a service node model relationships (i.e. between the users of the programming department 22 and the engineering department 16) are demand attributes (i.e. a user of the lower level 22 requests resources of the system, which can be considered a demand attribute) (e.g. abstract; Figure 1). Hauser further discloses the hierarchical resource management system can also have capacity attributes for the server nodes (i.e. the computers encompassed by the programming department 22 and the engineering department 16 since each level has an associated "Maximum_Allowed" value which determines the capacity of the resource for the department) (e.g. abstract). Hauser furthermore discloses generating an optimized mapping as a function of the service node relationships and server node relationships (if a user has not met his "minimum_guaranteed" value of resource, the system is optimized and extra capacity is taken from another department, 18 for example, and applied to the user, thereby providing an optimization between the service relationships and the server relationships). It would have been obvious to one of ordinary skill in the art to combine the teaching of Hauser with Pace since Pace discloses that load balancing models are well known in the art, this would motivate one of ordinary skill in the art for other methods of hierarchical resource management, eventually finding Hauser and its use of Maximum allowed values, and minimum guaranteed values (e.g. abstract).

14. Referring to claims 4 and 5, Hauser in view of Pace disclose the invention substantively as described in claim 3. Pace does not disclose the service node has a set of capacity attributes and optimizing mapping between the capacity attributes of the

two levels. Hauser discloses that when a lower level 22 demands use of a resource, the higher level 16 checks to make sure it is below its "maximum allowed" level, thereby inherently having a capacity attribute (e.g. abstract; col. 3, line 66 to col. 4, line 19). Furthermore Hauser discloses that a lower level resource can demand more from a higher level such that it does not meet its "minimum guaranteed" value (e.g. abstract; col. 4, lines 20-40). When these teachings are applied to both the service-model nodes as well as the server-model nodes, they teach the limitations of the aforementioned claims. It would have been obvious to one of ordinary skill in the art to combine the teaching of Hauser with Pace since Pace discloses that load balancing models are well known in the art, this would motivate one of ordinary skill in the art for other methods of hierarchical resource management, eventually finding Hauser and its use of Maximum allowed values, and minimum guaranteed values (e.g. abstract).

15. Referring to claim 6, Hauser in view of Pace disclose the invention substantively as described in claim 5. Pace furthermore disclsoes creating an allocation matrix that represents the optimized mapping (i.e. engagement table data structure) (p. 20, ¶ 308). Pace furthermore discloses creating an extended environment utilizing XML (Figure 2B, pp. 28-9, ¶ 409-4110. Hauser in view of Pace do not specifically disclose the service models and server models in XML and the allocation matrix in XML, however it is well known that XML can be utilized to create server models with its dynamic abilities to define attributes as seen in Pace. Therefore one of ordinary skill in the art would find it obvious to modify the teaching of Pace and Hauser to incorporate XML into the server

models in order to provide a universal language which can easily be upgraded or replaced.

16. Claims 7-11, and 15-17 recite obvious variations of the limitations of claims 1-5 and are hereby rejected for similar reasons as stated above.

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Again, it is the Examiner's position that Applicant has not yet submitted claims drawn to limitations, which define the operation and apparatus of Applicant's disclosed invention in manner, which distinguishes over the prior art. As it is Applicant's right to continue to claim as broadly as possible their invention. It is also the Examiner's right to continue to interpret the claim language as broadly as possible. It is the Examiner's position that the detailed functionality (*i.e. specifying the details of the attributes connecting the different service and server models)* that allows for Applicant's invention to overcome the prior art used in the rejection, fails to differentiate in detail how these features are unique. Thus, it is clear that Applicant must submit amendments to the claims in order to distinguish over the prior art use in the rejection that discloses different features of Applicant's claim invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph E. Avellino whose telephone number is (571) 272-3905. The examiner can normally be reached on Monday-Friday 7:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JEA
May 10, 2005

WILLIAM C. VAUGHN, JR.
PRIMARY EXAMINER